# Frontiers in Science

## Public Lecture Series

**Sponsored by the Fellows of Los Alamos National Laboratory**

# *Neutrinos in the Cosmos, in the Sun, and on Earth*

William C. Louis, Subatomic Physics Group

*Little is known about neutrinos. Yet, they are the most abundant particles in the universe and have played a key role in the origin and evolution of the universe. Los Alamos scientists Fred Reines and Clyde Cowan discovered the neutrino 45 years ago, an achievement for which Reines received the Nobel Prize in physics in 1995. Since that discovery, neutrinos have been observed from many sources, including the sun and supernovae (for that work, Ray Davis and Masatoshi Koshiba shared the Nobel Prize in physics in 2002). Besides playing a big role in cosmology and supernovae bursts, neutrinos may also explain why we exist, why there is far more matter than antimatter in the universe. Making use of neutrinos from natural and manmade sources, experiments around the world are now poised to shed light on some of these fundamental questions that have been asked since the dawn of civilization.*

**Santa Fe: Wednesday, 29 January 2003 at 7:30 PM**
**James A. Little Theater, New Mexico School for the Deaf**

**Albuquerque: Wednesday, 5 February 2003 at 7:30 PM**
**New Mexico Museum of Natural History and Science**

**Los Alamos: Wednesday, 19 February 2003 at 7:30 PM**
**Duane W. Smith Auditorium, Los Alamos High School**

**Taos: Thursday 20 February 2003 at 7:30 PM**
**Taos Convention Center**

## Admission Is Free

**http://stb.lanl.gov/fellows/fellows.html**

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